

WHAT IS CLAIMED IS:

1. A method for recovering a communication session after failure of an endpoint, comprising:

5 establishing a communication session between a first endpoint and a second endpoint;

receiving keep alive signals from the first endpoint;

10 detecting an interruption in the keep alive signals; maintaining a connection with the second endpoint after the interruption; and

reestablishing the communication session between the first endpoint and the second endpoint if the keep alive signals resume within a predetermined time period.

15 2. The method of Claim 1, further comprising transferring the communication session with the second endpoint from the first endpoint to a third endpoint if the keep alive signals do not resume within the predetermined time period.

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3. The method of Claim 1, further comprising: notifying the second endpoint that the first endpoint has failed; and

25 communicating a message to the first endpoint instructing the first endpoint to reboot.

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4. The method of Claim 2, wherein:

the first endpoint is associated with a user in a directory relating a plurality of users to a plurality of endpoints;

5 the third endpoint is also associated with the user in the directory; and

the method further comprises:

determining the user associated with the first endpoint using the directory; and

10 determining that the third endpoint is also associated with the user.

5. The method of Claim 2, wherein the third endpoint is a voice mail system associated with a user of
15 the first endpoint.

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6. A method for recovering a communication session after failure of an endpoint, comprising:

establishing a communication session between a first
5 endpoint and a second endpoint;

receiving keep alive signals from the first
endpoint;

detecting an interruption in the keep alive signals;
maintaining a connection with the second endpoint
10 after the interruption; and

transferring the communication session with the
second endpoint from the first endpoint to a third
endpoint.

15 7. The method of Claim 6, wherein:

the first endpoint is associated with a user in a
directory relating a plurality of users to a plurality of
endpoints;

the third endpoint is also associated with the user
20 in the directory; and

the method further comprises:

determining the user associated with the first
endpoint using the directory;

determining that the third endpoint is also
25 associated with the user; and

selecting the third endpoint for the
communication session.

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11. A method for reestablishing a communication session, comprising:

5 establishing a communication session between a first endpoint and a second endpoint;

receiving from a user of the first endpoint a message to reestablish the communication session; and

10 in response to the message, reestablishing the communication session between the second endpoint and the user of the first endpoint.

12. The method of Claim 11, wherein the step of reestablishing comprises transferring the communication
15 session with the second endpoint from the first endpoint to a third endpoint associated with the user of the first endpoint.

13. The method of Claim 11, wherein the step of
20 reestablishing comprises:

instructing the first endpoint to reset;

waiting a predetermined period of time for the first endpoint to reset; and

25 reestablishing the communication session between the first endpoint and the second endpoint if the first endpoint successfully resets during the predetermined period of time.

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14. The method of Claim 13, wherein the step of reestablishing further comprises transferring the communication session with the second endpoint from a first endpoint to a third endpoint associated with the user of the first endpoint if the first endpoint does not successfully reset within the predetermined period of time.

10 15. The method of Claim 11, wherein the steps are
performed by logic embodied in a computer readable
medium.

16. A communication device, comprising:
an interface operable to receive keep alive signals
from a first endpoint in a communication session with a
second endpoint; and

5 a processor operable to:
detect an interruption in the keep alive
signals;
maintain a connection with the first endpoint
after the interruption; and
10 reestablish the communication session if the
keep alive signals resume within a predetermined time
period.

17. The communication device of Claim 16, wherein
15 the processor is further operable to transfer the
communication session with the second endpoint from the
first endpoint to a third endpoint if the keep alive
signals do not resume within a predetermined time.

20 18. The communication device of Claim 16, wherein
the communication device comprises a call manager.

19. The communication device of Claim 16, wherein
the communication session comprises a point-to-point
25 communication session.

20. The communication device of Claim 19, wherein
the point-to-point communication session is established
using Session Initiation Protocol (SIP) or H.323.

24. The communication device of Claim 16, wherein:
the first endpoint is coupled to an Internet
protocol (IP) network carrying packets over User Datagram
Protocol (UDP);

5 the communication device is coupled to the IP
network; and

the keep alive signals comprise UDP signaling
information.

10 25. The communication device of Claim 17, wherein:
the first endpoint comprises a voice-over-IP (VoIP)
telephone; and

the third endpoint comprises a cellular telephone
associated with a user of the VoIP telephone.

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26. A communication device, comprising:

an interface operable to receive keep alive signals
from a first endpoint in a communication session with a
second endpoint; and

5 a processor operable to:

detect an interruption in the keep alive
signals;

maintain a connection with the second endpoint
after the interruption; and

10 transfer the communication session with the
second endpoint to a third endpoint.

27. The communication device of Claim 26, wherein
the first and third endpoints are interactive voice
15 response servers (IVRs).

28. The communication device of Claim 26, wherein
the processor is further operable to:

20 store status information for the first
endpoint; and

use the status information to resume the
communication session with the third endpoint from
approximately a point at which the interruption in keep
alive signals was detected.

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29. The communication device of Claim 26, wherein:
the first endpoint is coupled to a transport control
protocol / Internet protocol (TCP/IP) network;
5 the communication device is coupled to the TCP/IP
network; and
the keep alive signals comprise TCP/IP signaling
information.

10 30. The communication device of Claim 26, wherein:
the first endpoint is coupled to an Internet
protocol (IP) network carrying packets over User Datagram
Protocol (UDP); and
the keep alive signals comprise UDP signaling
15 information.

31. The communication device of Claim 26, wherein
the processor is further operable to transfer the
communication session automatically in response to a
20 message from the first endpoint.

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32. Logic embodied in a computer readable medium operable to perform the steps of:

establishing a communication session between a first endpoint and a second endpoint;

5 receiving keep alive signals from the first endpoint;

detecting an interruption in the keep alive signals;

maintaining a connection with the second endpoint after the interruption; and

10 reestablishing the communication session between the first endpoint and the second endpoint if the keep alive signals resume within a predetermined time period.

33. The logic of Claim 32, wherein the logic is
15 further operable to perform the step of transferring the communication session with the second endpoint from the first endpoint to a third endpoint if the keep alive signals do not resume within the predetermined time period.

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34. The logic of Claim 32, wherein the logic is further operable to perform the steps of:

notifying the second endpoint that the first endpoint has failed; and

25 communicating a message to the first endpoint instructing the first endpoint to reboot.

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36. Logic embodied in a computer readable medium operable to perform the steps of:

5 establishing a communication session between a first endpoint and a second endpoint;

receiving keep alive signals from the first endpoint;

10 detecting an interruption in the keep alive signals; maintaining a connection with the second endpoint after the interruption; and

transferring the communication session with the second endpoint from the first endpoint to a third endpoint.

15 37. The logic of Claim 36, wherein:

the first endpoint is associated with a user in a directory relating a plurality of users to a plurality of endpoints;

20 the third endpoint is also associated with the user in the directory; and

the logic is further operable to perform the steps of:

determining the user associated with the first endpoint using the directory;

25 determining that the third endpoint is also associated with the user.

38. The logic of Claim 36, wherein:

the first and third endpoints are interactive voice
response servers (IVRs); and

the logic is further operable to perform the steps
5 of:

storing status information about the first
endpoint; and

using the status information to resume the
communication session from approximately a point at which
10 the interruption in keep alive signals was detected.

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39. A system for recovering a communication session after failure of an endpoint, comprising:

means for establishing a communication session between a first endpoint and a second endpoint;

means for receiving keep alive signals from the first endpoint;

means for detecting an interruption in the keep alive signals;

means for maintaining a connection with the second endpoint after the interruption; and

means for transferring the communication session with the second endpoint to a third endpoint.

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